IN THE CLAIMS:

1-84. (Cancelled)

85. (Previously Presented) A purified peptide having LPS-binding and -neutralizing activity wherein the peptide is derived from SEQ ID NO: 1 by modification of one amino acid residue in SEQ ID NO:1 to obtain a modified peptide, and optionally, by extension of up to four residues at each side of the modified peptide; and wherein said modification is an amino acid substitution selected from the group consisting of:

(i) replacement of Arg at position 1 by one of the D- or L-amino acid residues Ala, Thr, Gln, Asn or Ser;

(ii) replacement of Arg at position 5 by one of the D- or L-amino acid residues Ala, Thr, Gln, Asn or Ser;

(iii) replacement of Arg at position 9 by one of the D- or L-amino acid residues Ala, Thr, Gln, Asn or Ser;

(iv) replacement of Lys at position 10 by one of the D- or L-amino acid residues Ala, Val, Ile, Leu, Phe, Met, Trp or Tyr;

(v) replacement of Ser at position 11 by one of the D- or L-amino acid residues Ala or Val; and

(vi) replacement of Phe at position 12 by one of the D- or L-amino acid residues Ala, Thr, Gln, Asn or Ser.

86. (Previously Presented) A purified peptide according to claim 85, wherein said peptide constitutes the N-terminal region of a larger polypeptide.

87. (Previously Presented) A purified peptide according to claim 85, wherein said peptide constitutes the C-terminal region of a larger polypeptide.

88. (Previously Presented) A purified peptide according to claim 85, wherein said peptide is inserted into a larger polypeptide.

89. (Previously Presented) A purified peptide according to claim 85, wherein at least one amino acid of said peptide is substituted by a non-natural homologous amino acid.

90. (Previously Presented) A purified peptide according to claim 86, wherein the N-terminus is modified by acetylation or succinylation.

91. (Previously Presented) A purified peptide according to claim 87, wherein the C-terminus is a -OH, -COOH or $-CONH_2$ group.

92. (Previously Presented) A purified peptide according to claim 85, wherein said peptide is constrained to adopt a cyclic conformation by an intramolecular disulfide or amide bond.

93. (Previously Presented) A purified peptide according to claim 85, wherein the backbone of said peptide is substituted by backbone-mimetic organic entities.

94. (Previously Presented) A purified peptide according to claim 85, wherein at least one amino acid of said peptide is substituted by alkylation using chemical or enzymatic methods.

95. (Previously Presented) A purified peptide according to claim 85, wherein at least one amino acid of said peptide is glycosylated using chemical or enzymatic methods.

96. (Previously Presented) A purified peptide according to claim 85, wherein said peptide further comprises a label selected from the group consisting of biotin, radioisotopes, enzymes, colloidal metals or fluorescent, chemiluminescent, or phosphorescent compounds.

97. (Previously Presented) A linear polypeptide chain containing two or more repeats of a purified peptide according to claim 85, wherein said repeats of the peptide are connected by 12-25 amino acid linkers, rich in glycine, alanine, proline or serine residues.

98. (Previously Presented) A linear polypeptide chain containing a combination of two or more purified peptides according to claim 85, wherein said combination of the peptides is connected by 12-25 amino acid linkers, rich in glycine, alanine, proline or serine residues.

99. (Previously Presented) An arrangement of three or more purified peptides according to claim 85, wherein said peptides are linked by their C-terminus to a lysine core structure.